Amendment Dated May 1, 2007
Serial No. 10/657,654

## IN THE CLAIMS

Claim 1. (Withdrawn) A method for encapsulating services for transmission over a physical medium, comprising:

receiving a frame from a metallic link, said frame being formed according to an encapsulation protocol and containing an encapsulated protocol data unit; and

processing the frame.

Claim 2. (Withdrawn) A method, comprising:

receiving a first protocol data unit formatted according to a first service;

encapsulating the first protocol data unit in a first frame;

transmitting the first frame over a first physical medium;

receiving a second protocol data unit formatted according to a second service;

encapsulating the second protocol data unit in a second frame; and

transmitting the second frame over a second physical medium;

wherein the first frame and the second frame are of the same format.

Claim 3. (Withdrawn) A method of encapsulating protocol data units for transmission in a communication network, the method comprising the steps of:

encapsulating a first protocol data unit using generic framing procedure to form a first frame;

transmitting the first frame over a first metallic link.

Claim 4. (Withdrawn) The method of claim 3, wherein the first protocol data unit is formed according to a first protocol, said first protocol being selected from the group comprising ATM, Frame Relay, Ethernet, and Internet Protocol.

Claim 5. (Withdrawn) The method of claim 3, wherein the first frame is transmitted over the first link using a physical layer protocol, said physical layer protocol being selected from the group comprising one of the Digital Subscriber Line protocols, one of the T/E/DS protocols, and a protocol used for transmission of signals over cable television wires.

-2-

Amendment Dated May 1, 2007
Serial No. 10/657,654

Claim 6. (Withdrawn) A method, comprising:

receiving an Ethernet frame;

encapsulating the Ethernet frame in a Generic Framing Procedure (GFP) frame; and

transmitting the GFP frame over an interface to a T1 metallic link.

Claim 7. (Withdrawn) A method, comprising:

receiving GFP frames over an optical data link; and

forwarding the GFP frames over a metallic link.

Claim 8. (Original) A network device, comprising:

a first line interface unit configured to interface with a first physical medium; and

a universal mapper configured to map protocol data units from multiple services onto frames for transmission over the first line interface unit.

Claim 9. (Original) The network device of claim 8, further comprising a second line interface unit configured to interface with a second physical medium; and

wherein the universal mapper is configured to map the protocol data units from the multiple services onto frames for transmission over the second line interface unit.

Claim 10. (Original) The network device of claim 8, wherein the universal mapper is configured to receive the protocol data units and map the protocol data units into Generic Framing Procedure (GFP) frames.

Claim 11. (Original) The network device of claim 8, further comprising an optical line interface unit configured to interface with an optical transmission medium; and

switching circuitry configured to interconnect the optical line interface unit with the first line interface unit.

-3-

Amendment Dated May 1, 2007
Serial No. 10/657,654

Claim 12. (Original) The network device of claim 11, wherein the switching circuitry is configured to switch Generic Framing Procedure (GFP) frames between the optical line interface unit and the first line interface unit.

Claim 13. (Original) The network device of claim 10, wherein the GFP frames comprise a core header and a payload, said payload being configured to contain at least one of said protocol data units.

Claim 14. (Original) The network device of claim 13, wherein the core header is configured to contain an indication of the length of the payload, wherein the payload is configured to contain a payload header, and wherein the payload header is configured to contain an indication of the type of protocol data unit contained in the payload.

Claim 15. (Original) The network device of claim 14, further comprising a GFP-service mapper for each service supported by the network device.

Claim 16. (Original) The network device of claim 15, wherein the network device supports multiple physical mediums, and wherein the GFP-service mappers map protocol data units to GFP frames for transmission over all physical mediums supported by the network device.

Claim 17. (Original) The network device of claim 16, wherein the physical mediums each comprise a metallic link coupled with a physical layer transmission protocol.

Claim 18. (Original) The network device of claim 8, wherein the first line interface unit is configured to receive second frames containing second protocol data units, and wherein said universal mapper is further configured to process said second frames.

Claim 19. (Original) The network device of claim 16, wherein the second frames are Generic Framing Procedure (GFP) frames.

-4-

Amendment Dated May 1, 2007
Serial No. 10/657,654

Claim 20.   (Original)   The network device of claim 17, further comprising an optical line interface unit, and wherein the universal mapper is configured to process the frames by causing the frames to be transmitted by the optical line interface unit.

Claim 21.   (Original)   The network device of claim 17, further comprising an optical line interface unit, and wherein the universal mapper is configured to process the frames by multiplexing multiple GFP frames into a larger GFP frame and passing the larger GFP frame to the optical line interface unit.

-5-